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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/524,868	02/14/2005	Shingo Shikuwa	Ace Case 13	2987
23474	7590	06/02/2006	EXAMINER	
FLYNN THIEL BOUTELL & TANIS, P.C. 2026 RAMBLING ROAD KALAMAZOO, MI 49008-1631			VAN, QUANG T	
			ART UNIT	PAPER NUMBER
			3742	
DATE MAILED: 06/02/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/524,868	Applicant(s) SHIKUWA ET AL.	
	Examiner Quang T. Van	Art Unit 3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/18/05</u> . | 6) <input type="checkbox"/> Other: ____. |

Specification

1. The abstract of the disclosure is objected to because the abstract has more than 1 paragraph. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP2000-256733A in view of JP09-257752A and JP06295782A, all cited by applicants. JP2000-256733A discloses an induction hardening apparatus comprising a heating inductor (100, 200) including an inductive portion (110-111, 210-211) corresponding to the whole of a region to be heated demarcated in the article made of the thin sheet (W). However, JP2000-256733A does not disclose a power supply device for applying a high-frequency current to said heating inductor to heat inductively the region to be heated to a temperature equal to or more than a target temperature higher than the magnetic transformation point, wherein said power supply device comprises a current controller for stopping or reducing temporarily the power application of the high-frequency current to said heating inductor before the region to be heated reaches the target temperature. JP09-257752A discloses a power supply device for applying a high-frequency current to said heating inductor to heat inductively the region to be heated to a temperature equal to or more than a target temperature higher than the

magnetic transformation point (translation, par. 0035 and 0036). JP06295782A discloses a power supply device comprises a current controller for stopping or reducing temporarily the power application of the high-frequency current to said heating inductor before the region to be heated reaches the target temperature (translation, par. 0031-0033). It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize in JP2000-256733A a power supply device for applying a high-frequency current to said heating inductor to heat inductively the region to be heated to a temperature equal to or more than a target temperature higher than the magnetic transformation point as taught by JP09-257752A in order to heat the object to become an austenite texture; and a power supply device comprises a current controller for stopping or reducing temporarily the power application of the high-frequency current to said heating inductor before the region to be heated reaches the target temperature as taught by JP06295782A in order to control the heating temperature within a predetermined temperature range.

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Ketchum et al (US 3,781,506) discloses a non-contacting temperature measurement of inductively heated utensil, and other objects. Demidovitch et al (US 6,180,933) discloses a furnace with multiple electric induction heating sections.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quang T. Van whose telephone number is 571-272-4789. The examiner can normally be reached on 8:00Am 7:00Pm M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on 571-272-4777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

QV

QV
May 26, 2006

Quang T Van

Quang T Van
Primary Examiner
Art Unit 3742